

App. No. 09/271,008  
Amdt. Dated 8/27/2004  
Reply to Office Action of 05/27/2004

### **REMARKS/ARGUMENTS**

The present application is a Request for Continued Examiner under 37 C.F.R. 1.114 of pending U.S. Application Serial Number 09/271,008, which was filed on March 17, 1999. This Amendment is to support the Request for Continued Examination concurrently filed therein.

In the final Office Action dated May 27, 2004, the Office Action rejected claims 21-24 under 35 U.S.C. § 102, and claims 1 - 20 under 35 U.S.C. § 103. Claims 1, 10, 16, 19, and 21 have been amended. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Claims 1 - 24 remain in this application.

#### ***Double Patenting***

1. Claims 1 - 20 were rejected under the judicially created doctrine of the obviousness-type double patenting of the claim of copending Application No. 09/271,011 and claims 1 - 20 as being unpatentable over claims 1-22 of copending Application No. 09/131,141. The Office Action asserts that although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed invention of the instant application encompasses the claimed subject matters of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Therefore, Applicants acknowledge and offer submission of a terminal disclaimer to obviate the obviousness-type double patenting rejection upon allowance of the pending claims. Applicants respectfully request that the obviousness-type double patenting rejection is held in abeyance until allowance of the pending claims.

#### ***Rejection Under 35 U.S.C. § 102***

2. Claims 21 - 24 were rejected under 35 U.S.C. § 102(e) as being anticipated by Simmons et al. (USP 6,192,028).

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Applicants respectfully traverse the rejection and contend that a *prima facie* case of anticipation has not been established. Figure 3 and column 7, lines 21 through column 10, line 12 of Simmons do not teach a receive buffer (34) from which data packets are promoted in an assigned order based on pointer values with priority given to pointer values in the first pointer value buffer (64, 66). In Simmons, each data frame placed in the receive FIFO 64 has a header including at least a destination address, a source address and a type/length information. The rule checker, based on information in the header, determines where the frame packets will be cast, i.e., through which port the frame packet will be transmitted, using transmit FIFO 66. The header information does not contain any information regarding the order, priority, or the pointer values.

More importantly, Simmons teaches away from the invention by disclosing that the external rules checker "enables decision to be made in an order independent from the order in which the frames were received by the multiport switch." (Simmons, col. 6, lines 54-56). Simmons also teaches "random-based ordering in the decision queue". (Simmons, col. 6, lines 51-52). A random order implies that there is no order.

In response to Applicants' arguments, the final Office Action presents counter-arguments to which Applicants respectfully disagree as discussed below.

1) Assigned order based on pointer values:

The final Office Action states that "[t]he rule checks, among other steps, use the port vector to assign the frame pointer to at least a destination (col. 8, lines 19-20) (corresponding to "assigned order based on pointer values" (final Office Action, page 12). Applicants respectfully disagree for the following reasons.

First, the rules checker makes a forwarding decision (Simmons, col. 8, lines 7-12), not receiving. In contrast, in the present invention, the buffer is used to receive packets of data from the high-speed and low-speed links. To clarify this aspect of the claimed invention, claim 21 has been amended.

Second, "using the port vector to assign the frame pointer to a destination port" is not the same as "packets of data are promoted in an assigned order based on pointer values". The rule

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checker merely identifies a destination port in the header information to create a port vector (Simmons, col. 8, lines 7-12). The port vector and the corresponding frame pointer are then placed in a port vector FIFO (Simmons, col. 8, lines 21-23). The port vector FIFO then assigns the frame pointer to the appropriate destination port(s) by placing the frame pointer into the top of an appropriate output queue (Simmons, col. 8, lines 26-29). Therefore, the frame pointer is merely associated or points to a destination port. There is no order based on the pointer values. Furthermore, the rule checker does not promote the packets of data in an assigned order based on the pointer values. The frame pointer is placed into a queue. Its value is merely used to fetch the data from the external memory (Simmons, col. 8, lines 36-40), not used to determine an assigned order in which the data are promoted.

2) "Random order" versus "assigned order based on pointer values":

The final Office Action further states that the language in the claim does not exclude the interpretation of Simmons' "random-based ordering in the decision queue" and random order does not imply that there is no order (final Office Action, page 12). Applicants respectfully disagree for the following reasons.

First, the claim language clearly recites that "... packets of data are promoted in an assigned order based on pointer values "(Claim 1) The order, therefore, is specifically and clearly recited in the claim language. Second, a "random order" implies that there is no order because: (1) "random", defined by The American Heritage Dictionary, Second College Edition, published by Houghton Mifflin Company, 1985, as "having no specific pattern or objective" (Definition 1), and (2) "order", defined by The American Heritage Dictionary, Second College Edition, published by Houghton Mifflin Company, 1985, as "a condition of logical or comprehensible arrangement among the separate elements of a group" (Definition 1). Since "having no specific pattern or objective" is hardly "logical or comprehensible", a "random order" implies that there is no order. Specifically, a "random order" is an order having no specific pattern. In contrast, an "assigned order", as recited in claim 21 is an order having a specific pattern based on pointer values.

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3) The final Office Action failed to address the issue regarding Simmons teaching away from the invention by disclosing that the external rules checker "enables decision to be made in an order independent from the order in which the frames were received by the multiport switch."

The final Office Action does not address the issue regarding Simmons disclosing that the external rules checker "enables decision to be made in an order independent from the order in which the frames were received by the multiport switch." (Simmons, col. 6, lines 54-56). Since Simmons discloses an order independent from the order in which the frames were received, Simmons teaches away from the claimed invention. Amended claim 21 specifically recite "packets of data received from the high-speed link and the low-speed link are promoted in an assigned order based on pointer values" (Emphasis added.).

4) The final Office Action failed to address the issue regarding the header information not containing any information regarding the order, priority, or the pointer values:

As discussed in the previous response, Simmons merely discloses that the rule checker uses the information in the header to determine where the frame packets will be cast. Since the frame header merely contains a destination address, a source address, and a type/length information (See, for example, Simmons, col. 6, lines 34-37), not priority, order, or pointer values, the rule checker cannot cast the frame packets using the order based on the pointer values with priority given to pointer values in the first pointer value buffer, as recited in claim 21.

Accordingly, Applicants respectfully request the rejection under 35 U.S.C. §102 be withdrawn.

### ***Rejection Under 35 U.S.C. § 103***

3. Claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Simmons et al. (USP 6,192,028) in view of Frazier et al. (USP 5,784,559). Applicants respectfully traverse the rejection and contend that a *prima facie* case of obviousness has not been established.

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To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP §2143, p. 2100-128 (8<sup>th</sup> Ed., rev. 2, May, 2004)*. Applicants respectfully contend that there is no suggestion or motivation to combine their teachings, and thus no *prima facie* case of obviousness has been established.

Neither Simmons nor Frazier discloses, inherently or expressly, or suggests one or more of the following: (1) receiving a plurality of indications denoting commencement of data packet transmission as recited in claims 1, 10, 16 and 19; (2) assigning pointer values to corresponding records based at least in part on a relative order as recited in claims 1, 10, 16 and 19; (3) the pointer value determining an order accordingly to complete reception of the frame in which the respective data packet is promoted as recited in claims 1, 10, 16 and 19, and (4) , the data packet being promoted according to priority of the discrete quality of service

As discussed in the previous response, Simmons merely discloses transferring the data frame from the receive FIFO to the external memory. (Simmons, col. 7, lines 62, 64). This is done merely based on the heading information not according to the complete reception of the frame. (Simmons, cols. 1-4). Furthermore, Simmons merely disclose determining each receive FIFO individually, not in an aggregated link including a plurality of links. (Simmons, col. 7, lines 44-46).

More importantly, Simmons teaches away from the invention by disclosing that the external rules checker "enables decision to be made in an order independent from the order in which the frames were received by the multiport switch." (Simmons, col. 6, lines 54-56). Simmons also teaches "random-based ordering in the decision queue". (Simmons, col. 6, lines 51-52). A random order implies that there is no order.

In response to Applicants' arguments, the final Office Action presents counter-arguments to which Applicants respectfully disagree as follows.

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1) Aggregate link:

The final Office Action states that "Simmons' Figure 1 does indeed depict a plurality of links (MACs 60 and 62) corresponding to the claimed term "aggregated link". The Office Action further states that the logical combining multiple physical links into a logical channel trunk is widely known in the Gigabit Ethernet community as "trunking" and had been patented by Sun Microsystems in patent 6,049,528 (final Office Action, page 13). Applicants respectfully disagree for the following reasons.

The existence of a plurality of links does not mean that an aggregate link is formed or considered. "Aggregate" is defined by The American Heritage Dictionary, Second College Edition, published by Houghton Mifflin Company, 1985, as "Gathered together into a mass or sum so as to constitute a whole; total" (Definition 1). The MACs 60 and 62 as shown in Figure 2A of Simmons clearly show two separate elements. Each MAC has its own receive FIFO and transmit FIFO (Simmons, col. 7, lines 44-46). Frames are placed in the corresponding receive FIFO (Simmons, col. 7, lines 47-49). Therefore, the processing of the data frames is performed on the FIFO's individually without regard to one another, not as an aggregate link.

2) "Random order" versus "relative order" and "an order according to complete reception of the frame":

The final Office Action further states that the language in the claim does not exclude the interpretation of Simmons' "random-based ordering in the decision queue" and random order does not imply that there is no order. Applicants respectfully disagree for the following reasons.

First, the claim language clearly recites that "assigning a plurality of pointer values . . . based, at least in part, on a relative order in which data packets are transmitted, . . . the corresponding pointer value . . . being used to determine an order according to complete reception of the frame . . ." (Claim 1). The order, therefore, is specifically and clearly recited in the claim language. Second, a "random order" implies that there is no order as discussed in the 102 rejection above. In contrast, a "relative order", as recited in claims 1, 10, 16, and 19, is an order having a specific pattern of one with respect to another, and "an order according to

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complete reception of the frame", as recited in claims 1, 10, 16, and 19, is an order having a specific pattern based on the complete reception of the frame.

3) Simmons teaches away from the invention by disclosing that the external rules checker "enables decision to be made in an order independent from the order in which the frames were received by the multiport switch."

As discussed in the 102 rejection above, Simmons discloses that the external rules checker "enables decision to be made in an order independent from the order in which the frames were received by the multiport switch." (Simmons, col. 6, lines 54-56). Since Simmons discloses an order independent from the order in which the frames were received, Simmons teaches away from the claimed invention. Claims 1, 10, 16, and 19 recite "assigning a plurality of pointer values . . . based, at least in part, on a relative order in which data packets are transmitted, . . . the corresponding pointer value . . . being used to determine an order according to complete reception of the frame . . ." (Claim 1) (Emphasis added.).

To clarify the claim language, claims 1, 10, 16, and 19 have been amended. Support for the amendments can be found in the specification on page 26 (lines 8-20) and page 27 (lines 1-3).

Accordingly, Applicants respectfully request the rejection under 35 U.S.C. §103 be withdrawn.

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**Conclusion**

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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